

Gray Man. 604 (1848). *Hystrix patula* Moench Meth. 294 (1794); Hitchc. in Gray Man. ed. 7, 170 (1908). *Asprella Hystrix* Willd. Enum. Pl. Hort. Berol. 132 (1809); Watson & Coulter in Gray Man. ed. 6, 674 (1890). *Gymnostichum Hystrix* Schreb. Besch. Gräs. 3 : 127, t. 47 (1810); Gray Man. ed. 2, 571 (1856); ed. 5, 639 (1867). *Hystrix Hystrix* Millsp. Fl. W. Va. 474 (1892); Nash in Britt. Man. ed. 3, 158 (1907).

CAMBRIDGE, MASSACHUSETTS.

### THE INLAND VARIETY OF SPIRAEA TOMENTOSA.

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IN looking over a package of plants from Wisconsin I was recently impressed with the aspect of a specimen labeled *Spiraea tomentosa* L. In the almost simple and somewhat remote branches of its inflorescence it contrasted with the common form of the species in the Atlantic States, where the branches of the inflorescence are mostly compound, bearing the flowers often in small glomerules so closely crowded as to give the whole thyrsus a very dense appearance. Examination of all the material at hand showed that generally on the Coastal Plain and in the Atlantic States *Spiraea tomentosa* agrees in having the branches of the panicle densely flowered so that it is difficult to see distinctly the individual pedicels; while the material from the Appalachian Mountain system (West Virginia, North Carolina and South Carolina) as well as that from Wisconsin and Minnesota and a single sheet from southeastern Virginia agree in having the flowers less crowded so that the pedicels are distinctly visible and, though in very young material it is naturally difficult to make out this character, it is readily determined in all flowering and fruiting specimens. Another character seems to accompany that of the inflorescence. In all the fruiting material from the Coastal Plain and from the lower levels of the coastal States the follicles are so densely lanate that only in old or weather-beaten specimens can the surfaces of the follicles be seen; but in all the fruiting specimens of the more inland plant, even in inflorescences with the lowest branches still in anthesis, the com-

paratively short (not lanate) tomentum is promptly deciduous so that the lustrous and glabrate surfaces of the follicles are apparent. Attempts to find other characters have failed for in foliage the two plants closely simulate one another, the leaves of both varying in outline from lanceolate to ovate-oblong, with the tomentum of the lower surface from white to rufous; and occasional individuals from the coastal region have an open inflorescence and distinct pedicels but lanate follicles. The writer therefore does not feel justified at present in treating the plants as distinct species; but as geographic varieties they are well marked and deserving of recognition.

Judging from the Linnean description of *Spiraea tomentosa* which came from Philadelphia (*Kalm*) and was compared with *S. salicifolia* in the following terms: *Differt a praecedenti . . . racemo terminali composito densiori longiori,*<sup>1</sup> there is no question that he meant the densely flowered shrub of the Coastal Plain and adjacent regions; but the Plukenet plate of "*Ulmaria pentacarpos, integris serratis foliis parvis subtus incanis, virginiana,*"<sup>2</sup> cited by Linnaeus as belonging to *Spiraea tomentosa* has the open inflorescence and slender pedicels of the more inland shrub.

In his *New Flora* Rafinesque divided *Spiraea tomentosa* into five species with the characteristic comment: "All the above sp. agree in nothing but the tomentous leaves beneath, to deem them all varieties would be preposterous, as no character including them all could be found." Besides true *S. tomentosa* Rafinesque defined *S. ferruginea* with "flowers subsessile"; *S. glomerata* with "flowers subsessile glomerate"; *S. parvifolia* with "panicle spicate glomerate, flowers sessile"; and *S. rosea* with "panicle lax, peduncles [pedicels] as long as calix — West Kentucky to Alabama, disc. by Mrs. Holley, a beautiful shrub with fine rosate flowers, it deserves to be deemed a peculiar sp. by narrow leaves not white beneath, and lax rose flowers."<sup>3</sup> From the description and the range of Rafinesque's *S. rosea* there can be no question that he had the more loosely flowered extreme of *S. tomentosa*, with glabrate follicles; but the shrub cannot be separated from typical *S. tomentosa* "by the narrow leaves not white beneath" since the foliage varies in both these characters as much as that of true *S. tomentosa*; and, as already stated, the characters of the in-

<sup>1</sup> L. Sp. Pl., 489 (1753).

<sup>2</sup> Pluk. Alm., 397, t. 321, f. 5.

<sup>3</sup> Raf. New Fl., iii. 62, 63 (1836).

florescence, pedicels and follicles, although ordinarily well marked, show such transitions as to indicate that *S. rosea* is an extreme variety of *S. tomentosa* rather than a distinct species. It should be called

*SPIRAEA TOMENTOSA* L., var. **rosea** (Raf.) n. comb. *S. tomentosa* L. Sp. Pl. 489 (1753) as to the Plukenet plate. *S. rosea* Raf. N. Fl. iii. 62 (1836).—The following specimens are characteristic. WEST VIRGINIA: Elkins, Randolph Co., *Greenman*, no. 188. NORTH CAROLINA: Biltmore, *Biltmore Herb.* no. 1247b. SOUTH CAROLINA: definite station not given, *M. A. Curtiss*. WISCONSIN: Milwaukee, *Lapham*, Polk Co., *C. F. Baker*; Camp Douglas, *E. A. Mearns*, no. 336. MINNESOTA: St. Paul, *Hale*; Chicayo Co., *B. C. Taylor*.

GRAY HERBARIUM.

### SISYMBRIUM OFFICINALE IN THREE STATES.

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My first meeting with the typical form of *Sisymbrium officinale* (L.) Scopoli was on 13 July, 1910, when I collected three plants (sheet 1295, my herb.) along a railroad at St. Paul, Minnesota. Not recognizing its identity at the time, I failed to note whether other individuals of the species were present. So far as I am aware, the typical form has not been reported from the state since the difference between our two forms was first pointed out by Dr. Robinson some years ago.

Since that time I have twice collected the plant in Stoughton, Massachusetts. On 4 July, 1911, a single plant, growing with many of var. *leiocarpum* DC., was collected on a dump (sheet 2823). On 13 July, 1912, just two years after my first meeting with the species, four specimens were taken, found, together with many glabrous-fruited ones, in dry soil in a house-yard, perhaps a mile from the dump at which it had previously been taken.

On 27 July, 1911, Mrs. N. F. Flynn showed me at Starr Farm, Burlington, Vermont, a colony of Hedge Mustard in which she had noticed three days before a plant or two with pubescent pods. Going over the colony more carefully, we counted some forty-eight plants of